METHOD AND APPARATUS FOR CORRECTING FOR SYSTEMATIC ERRORS IN TIMING PATTERN GENERATION

ABSTRACT OF THE DISCLOSURE

Improvements in placement of timing patterns in self-servowriting include correcting for systematic errors due to geometric effects. A correction is made for varying systematic errors, such as when the recording head has spatially separate read and write elements. Further, servopattern rotation due to residual or unmeasured systematic errors is reduced by using a once per revolution clock index derived from the motor drive current waveform or any other sensor. In one aspect of correcting for systematic errors in the writing of timing patterns on a storage medium of a storage device, a time interval between a trigger pattern written at a first radial position of the storage medium and a rotational index is measured. The rotational index is related to the rotational orientation of the storage medium with respect to a fixed frame of the storage device. The location of another trigger pattern to be written is shifted, using the measured time interval to determine the shift in location for the another trigger pattern.